REMARKS

Claims 2, 3, 7, 8, 11, 12 and 14-19 are pending. Favorable reconsideration is respectfully requested.

The present invention relates to a method of producing a plate polymer obtained from a polymerizable raw material comprising methyl methacrylate, said method comprising using a belt type continuous plate manufacturing apparatus, which apparatus comprises two endless belts so placed that their facing belt surfaces run toward the same direction at the same speed, and continuous gaskets running under condition of being sandwiched by belt surfaces at their both side edge portions, wherein the polymerizable raw material is fed into a space surrounded by the facing belt surfaces and the continuous gaskets from its one end, the polymerizable raw material is solidified together with running of the belts in a heating zone, and the plate polymer is taken out from the other end, where

a plurality of upper and lower roll pairs each composed of an upper roll in contact with the upper surface of the upper belt and a lower roll in contact with the lower surface of the lower belt and having axes orthogonally crossing the belt running direction are placed along the belt running direction as a belt surface holding mechanism for the endless belts facing each other and running in the heating zone, the outer diameter D of the roll body portion of the upper and lower roll pairs is in the range of 100 mm to 500 mm,

polymerization proceeds in the heating zone and a temperature peak caused by heat of polymerization is attained at a position in said zone, and at least 4% of the total number of upper and lower roll pairs placed between the raw material feeding end and the position of said temperature peak contain a lower roll body portion having a crown shape, and

where 30 to 90% of the total number of upper and lower roll pairs placed between the inlet of the heating zone and the position of said temperature peak contain a lower roll body portion having a crown shape.

See Claim 11.

The rejections of the claims under 35 U.S.C. §103(a) over Kato et al. alone and in view of Whittum and/or Jensen et al. are respectfully traversed. The cited references fail to suggest the claimed method.

At column 5a, page 3 of the Office Action, the Examiner noted, with regard to Kato et al., that as seen in figure 17 below, the flexibility provides both rollers with a crown shape.

However, the present Claim 11 specifies "...contain a lower roll body portion having a crown shape". Therefore, in the present invention, a roll body in crown shape is used because the body portion directly effects the shape of the products. In contrast, Kato et al. teaches only that the shaft was bended but the body was not in crown shape.

At column 6b, page 6 of the office action, the Examiner noted that Whittum teaches forming rolls as seen in Fig. 1-9 with a crown shape and that it would have been obvious to use the crown rolls to control the shape of products.

However, in the present invention, the crown rolls is used as a lower roller. The upper roll of the upper and lower roll pair of the belt type continuous plate manufacturing apparatus has a relatively small amount of deflection because its self weight and a repulsive force from an inner liquid pressure of a raw material are in opposite directions, and the lower rolls as an extremely larger amount of deflection than the upper roll because its self weight and the repulsive force from the inner liquid pressure of the raw material are in the same downward direction. The correction of a deflected shape of the lower roll is the best approach for effectively eliminating a centrally thickened shape of a product and obtaining a plate which is not warped and has extremely smooth surfaces on both sides (re. page 6 of the present specification). In contrast, Whittum teaches the crown rolls in both upper and lower sides, but not lower side only. Furthermore, Whittum does not teach an influence by the self weight of rolls.

As noted in the Office Action, Jensen et al. fail to suggest the subject matter of Claim 11 in combination with Kato et al. alone or in combination with Whittum.

In view of the foregoing, Kato et al. alone or in combination with Whittum and/or Jensen et al. fail to suggest the claimed method. Accordingly, the subject matter of the pending claims is not obvious over this reference. Withdraw of these grounds of rejection is respectfully requested.

Applicants submit that the present application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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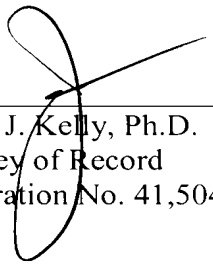

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